



## STATEMENT OF BASIS FOR IMPLEMENTING CORRECTIVE ACTION

**TIMKEN US CORPORATION, TYGER RIVER PLANT  
UNION, UNION COUNTY, SOUTH CAROLINA  
SCD 041 387 796**

### PURPOSE OF THE STATEMENT OF BASIS

This Statement of Basis has been prepared to inform the public and provide an opportunity to comment on the proposed corrective action for solid waste management units (SWMUs) at the Timken US Corporation, Tyger River Site. The Timken Site is located at 408 Industrial Park Road, Union, SC 29379 having the facility identification number SCD 041 387 796.

The October 28, 2005 Corrective Measures Study (CMS) Report proposes corrective action for soil and groundwater at three SWMUs at the Site: the Stoddard Solvent Release Area (SWMU #22), North Parking Lot Area (SWMU #24), and the North Drainage Ditch (SWMU #33). Proposed corrective action for groundwater includes **Dual Phase Vacuum Extraction with Groundwater Pumping** for SWMU #22 and **Monitored Natural Attenuation** for SWMU #24.

The CMS Report proposes **Excavation and Off-site Disposal** as the corrective action for contaminated soils at SWMU #33.

The South Carolina Department of Health and Environmental Control (SC DHEC) has determined that the proposed corrective action should be sufficient to protect human health and the environment. However, prior to final approval of the proposed corrective action, the public has an opportunity to comment on the proposed corrective action. At any time during the public comment period, the public may comment as described in the "How Do You Participate?" section. Upon closure of the public comment period, SC DHEC will evaluate all comments and questions and determine if there is a need to modify the proposed corrective action.

### HOW DO YOU PARTICIPATE?

The SC DHEC solicits public review and comment prior to approval of the proposed corrective action for the SWMUs. The public comment period for the proposed corrective action will begin on September 30, 2008 and will end 45 days later on November 14, 2008.

The Statement of Basis and the documents associated with the investigations and corrective actions proposed for the site will be available to the public for review during regular business hours, Monday through Friday, except legal holidays at the following locations:

Union County Carnegie Library  
300 E. South Street  
Union, SC 29379

SC DHEC

EQC Region 2 Office  
900 S. Pine Street, Suite 2A  
Spartanburg, SC 29303

SC DHEC  
Bureau of Land and Waste Management  
8911 Farrow Road  
Columbia, SC 29203

Any comments on the proposed corrective action and/or requests for a public hearing should be sent to:

Richard Haynes, P.E., Director  
Division of Waste Management  
South Carolina Department of Health and Environmental Control  
2600 Bull Street  
Columbia, South Carolina 29201  
Phone: (803) 896-4070

Email: [haynesra@dhec.sc.gov](mailto:haynesra@dhec.sc.gov)

To be considered, all requests and/or comments must be received in writing no later than November 14, 2008, at which time the forty-five (45) day public comment period will end.

## **FACILITY DESCRIPTION**

The Timken, Tyger River Site is located on 408 Industrial Park Road in City of Union's Industrial Park, which is west of Union, in unincorporated Union County. The Timken Plant manufactures roller bearings and supplies bearings to heavy equipment manufacturers including the aeronautical, steel, paper, military and mining industries. The Plant was owned and operated by the Torrington Company from 1965 to 2003. The Timken Company acquired the Torrington Company on February 18, 2003. The Torrington Tyger River Plant was then renamed Timken US Corporation Tyger River Plant.

## **SITE HISTORY**

From the Plant startup in 1965 to 1992 industrial waste from the production process was discharged into four wastewater lagoons at the Site (Former RCRA Lagoon Area in Figure 1). Chemical testing determined wastes in the lagoons to be hazardous. The wastewater lagoons were closed in 1994 in accordance with a closure plan approved by DHEC and an above-ground wastewater treatment plant was constructed at the site to receive industrial wastewater from the Plant. The wastewater lagoons were closed as landfills and a fence was constructed around the former lagoon area. A Resource Conservation and Recovery Act (RCRA) postclosure care permit was issued to the site on June 30, 1997 due to the required closure of the lagoons as hazardous waste management units and due to elevated levels of hazardous constituents found in groundwater downgradient of these units. The

RCRA permit requires groundwater cleanup and monitoring to be conducted during the postclosure care of the former lagoon area.

Concurrent with the closure and permitting of the former lagoon area the Environmental Protection Agency and DHEC conducted a RCRA Facility Inspection of the Site in November 1993. The Inspection indicated the presence of 46 Solid Waste Management Units (SWMUs), 19 of which needed additional investigation. These investigations, which included a Release Assessment Investigation and RCRA Facility Investigation, determined that three remaining SWMUs required corrective action, the **Stoddard Solvent Release Area** (SWMU #22), the **North Parking Lot Area** (SWMU #24) the **North Drainage Ditch** (SWMU #33). The locations of these SWMUs on the site is shown on Figure 1.

The Stoddard Solvent Release Area (SWMU #22) is the result of an underground release from a pipeline that connected an underground tank of Stoddard Solvent to the main manufacturing building. Since January 2001, a dual phase vacuum extraction (DVE) system has been recovering volatile organic compounds (VOCs) from the soil and groundwater of SWMU # 22. The North Parking Lot Area (SWMU #24) is an area of groundwater contamination originating from SWMU #22 that is at concentrations very near Federal Drinking Water Standards. The North Drainage Ditch Area (SWMU #33) is a drainage ditch that received stormwater containing lubricating oils and coolants. The shallow soils of this SWMU are contaminated; no impacts have occurred to groundwater .

#### **PROPOSED CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS**

The Timken US Corporation submitted a Final Corrective Measures Study (CMS) Report to DHEC on December 28, 2006. The CMS Report's recommendations for final corrective action at the SWMUs #22, 24, and 33 are as follows:

<b><u>SWMU</u></b>	<b><u>Proposed Corrective Measure</u></b>
SWMU #33- North Drainage Ditch	Soil excavation and disposal to off-site waste management facility
SWMU #24- North Parking Lot Area	Monitored Natural Attenuation
SWMU #22-Stoddard Solvent Release Area	Dual Phase Vacuum Extraction with Groundwater Pumping

For SWMU #22, groundwater pumping with the DVE enhancement has performed effectively. This

system will continue to operate until clean-up standards are achieved. As contaminants are removed the groundwater pumping and vacuum applied to the pumping wells via the DVE system may be operated on an intermittent basis to improve contaminant recovery effectiveness. Modifications to the pumping and vacuum schedules will be made based on the review of semiannual monitoring data and will not be implemented until DHEC has issued approval to operate the system intermittently.

For SWMU #24, natural processes in groundwater have either already reduced VOC concentrations to either below or approaching groundwater cleanup standards. The effect of these natural processes on groundwater quality will be evaluated through monitored natural attenuation (MNA). The MNA monitoring program will consist of sampling wells on a semiannual basis in the North Parking Lot area in the shallow and bedrock aquifers. The corrective action for SWMU #25 also includes a contingency plan for the additional assessment including the installation of additional wells in the event that VOC concentrations increase above cleanup standards or VOCs are detected in previously clean wells.

For SWMU#33, soil excavation and off-site disposal in a certified waste management facility is the proposed corrective action. The RFI assessment and groundwater data have provided a detailed delineation of the soil contamination for excavation and indicate additional soil and groundwater impacts from soil and grease are not occurring. The extent of soil impacted by oils and coolants is approximately 100 feet by 3 feet by 2 feet, which is equivalent to approximately 40 tons or less. The cleanup goal for this area is to remove the highest soil impacts of oil and grease to below 7,000 micrograms per kilogram. With the achievement of this goal, the shallow surface soil contamination will no longer pose a potential long-term threat to either groundwater quality or storm water run-off at the site. Additionally, it is anticipated that the lower oil and grease concentrations will degrade naturally.

## **PUBLIC PARTICIPATION**

To facilitate public participation in the corrective action process at the Site, the following actions have been taken:

- Established a local information repository
- Developed this Statement of Basis
- Prepared a mailing list and mailed this Statement of Basis, Fact Sheet and Public Notice to the facility mailing list

## **NEXT STEPS**

Following the consideration of public comments by SC DHEC, a revised Final Decision and Response to Comments (FDRTC) accepting or rejecting the proposed corrective action will be issued.